

FIG. 1

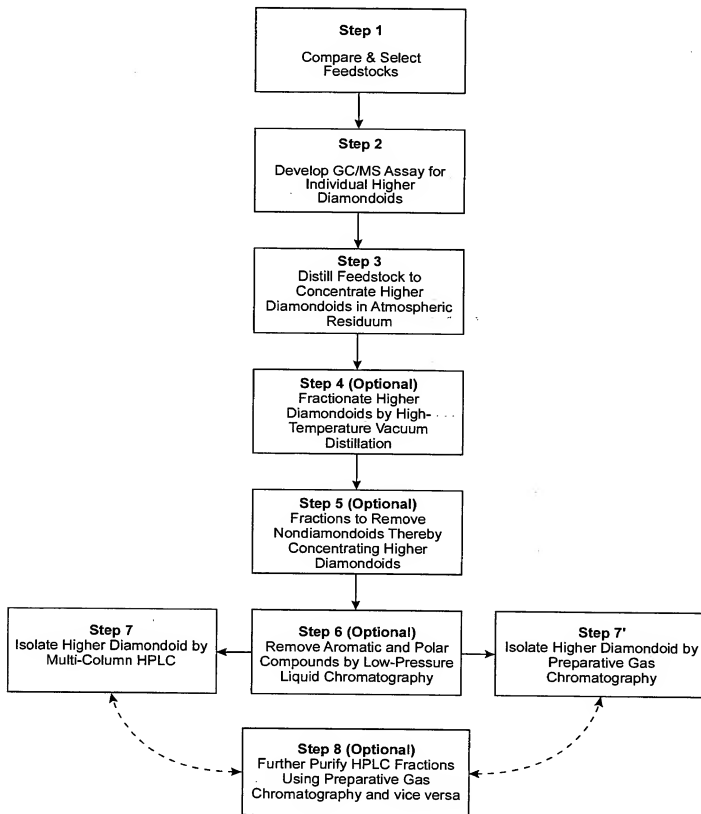


FIG. 2

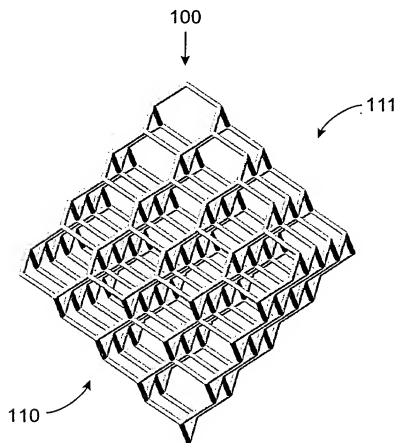


FIG. 3A

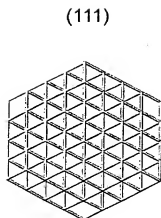


FIG. 3B

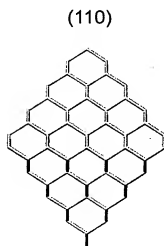


FIG. 3C

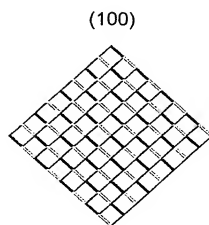


FIG. 3D

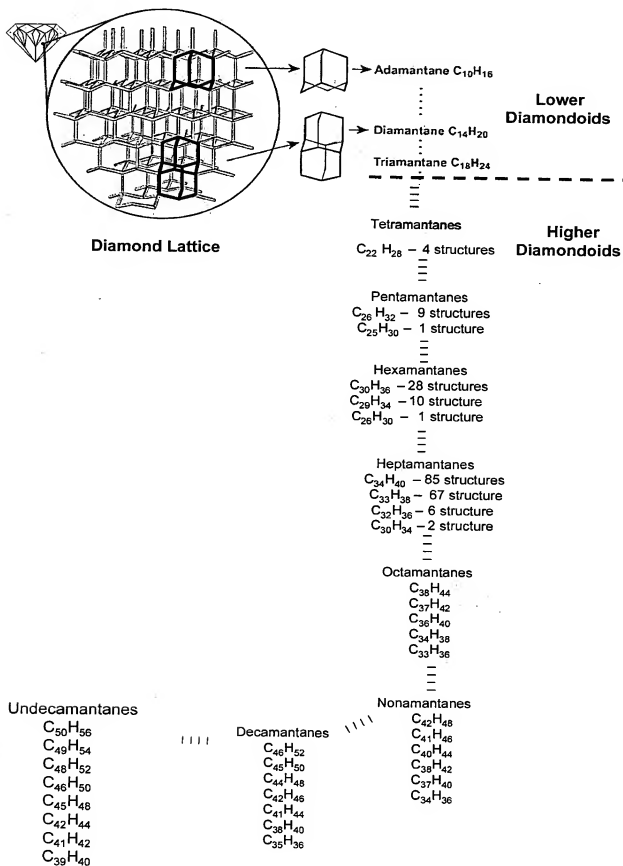


FIG. 4

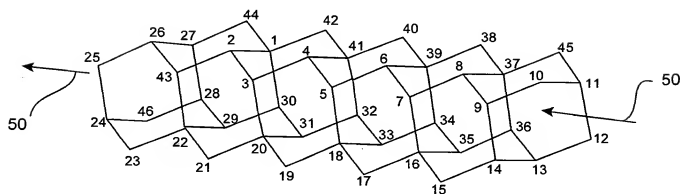


FIG. 5A

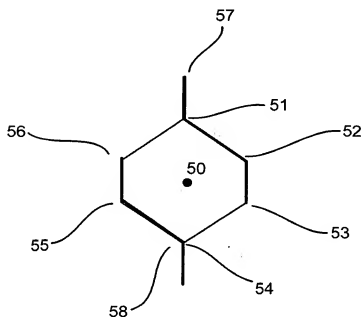


FIG. 5B

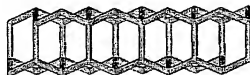
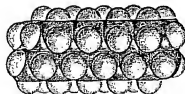


FIG. 5C

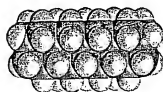


FIG. 5D



FIG. 5E

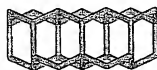
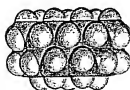


FIG. 5F

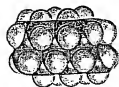
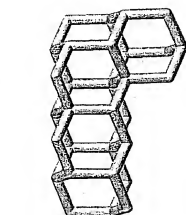


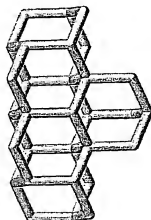
FIG. 5G

Position	Number of adamantane	Tetramantane n=4	Petramantane n=5	Hexamantane n=6	Heptamantane n=7
57	Number Type	n-2=2 all secondary	m-2=3 all secondary	n-3=3 all secondary	m-3=4 all secondary
58	Number Type	n-2=2 all secondary	m-3=2 all secondary	n-3=3 all secondary	m-4=3 all secondary
51	Number Type	n-1=3 2 tertiary carbons at the ends 1 quaternary carbon in the middle	m-1=4 2 tertiary carbons at the ends 2 quaternary carbons in the middle	n-2=4 2 tertiary carbons at the ends 2 quaternary carbons in the middle	m-2=5 2 tertiary carbons at the ends 2 quaternary carbons in the middle
54	Number Type	n-1=3 2 tertiary carbons at the ends 1 quaternary carbon in the middle	m-2=3 2 tertiary carbons at the ends 1 quaternary carbon in the middle	n-2=4 2 tertiary carbons at the ends 2 quaternary carbons in the middle	m-2=5 2 tertiary carbons at the ends 2 quaternary carbons in the middle
52,56	Number Type	n-1=3 1 secondary, 1 tertiary carbon at the ends 1 tertiary carbon in the middle	m-1=4 2 secondary carbons at the ends 2 tertiary carbons in the middle	n-2=4 1 secondary, 1 tertiary carbon at the ends 2 tertiary carbons in the middle	m-2=5 2 secondary carbons at the ends 3 tertiary carbons in the middle
53,55	Number Type	n-1=3 1 secondary, 1 tertiary carbon at the ends 1 tertiary carbon in the middle	m-2=3 2 tertiary carbons at the ends 1 tertiary carbon in the middle	n-2=4 1 secondary, 1 tertiary carbon at the ends 2 tertiary carbons in the middle	m-3=4 2 tertiary carbons at the ends 2 tertiary carbons in the middle

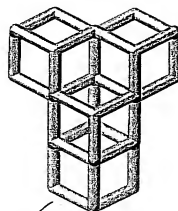
FIG. 5H



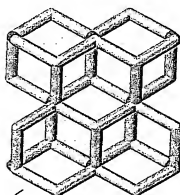
601



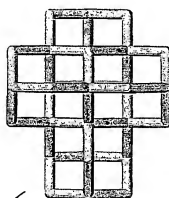
602



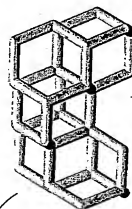
603



604

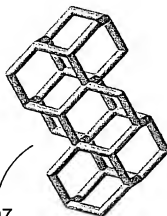


605



606

FIG. 6A



607

+

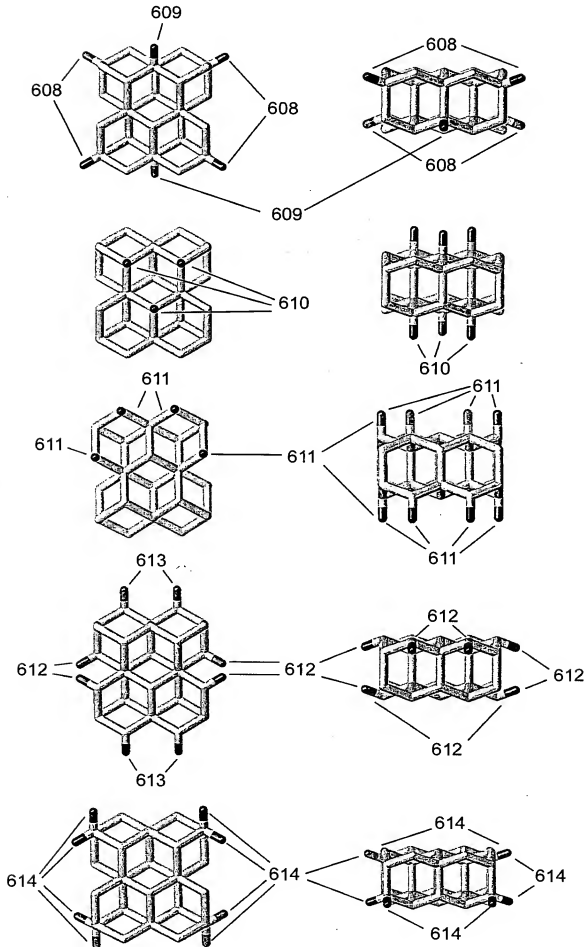


FIG. 6B

+

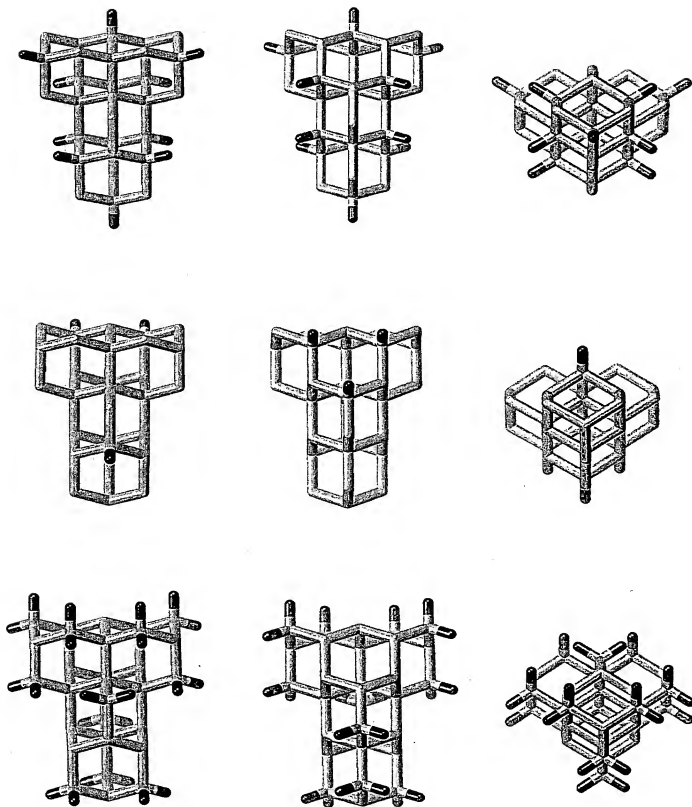


FIG. 6C

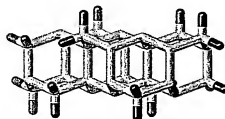
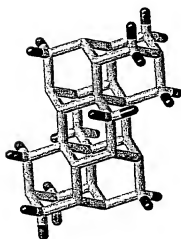
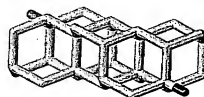
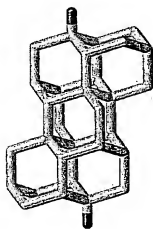
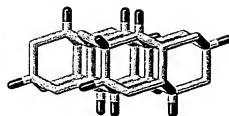
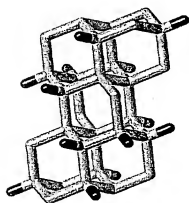


FIG. 6D

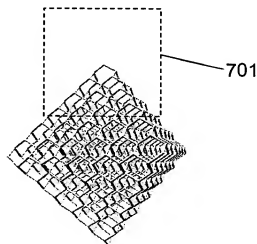


FIG. 7A

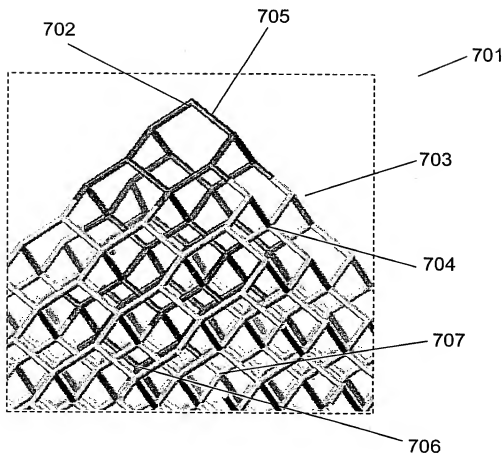


FIG. 7B

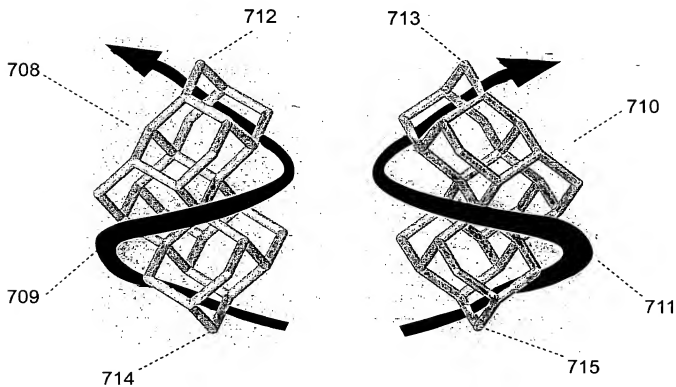


FIG. 7C

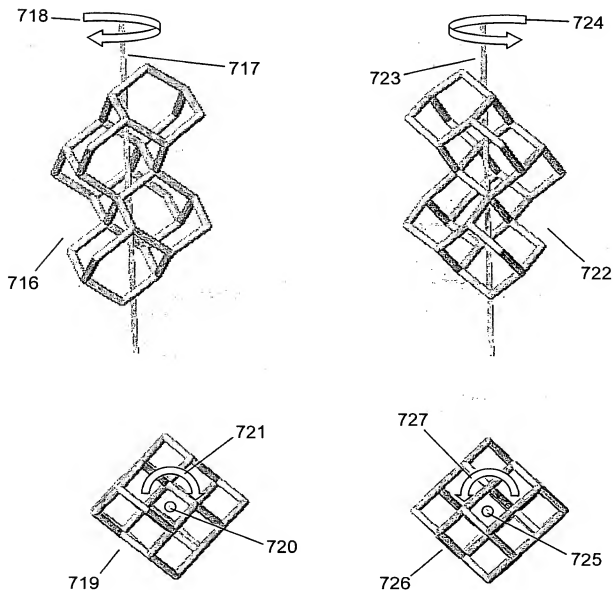


FIG. 7D

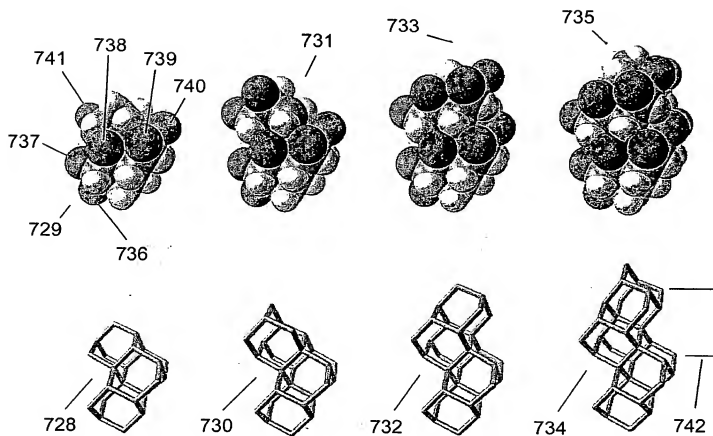


FIG. 7E

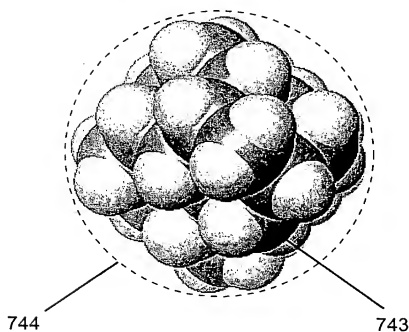


FIG. 7F

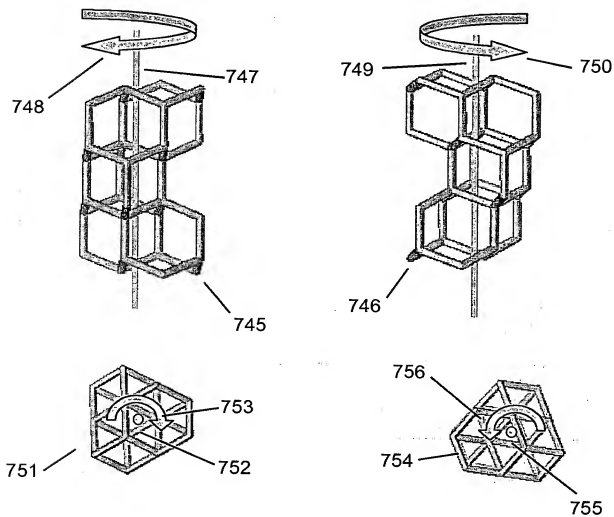


FIG. 7G

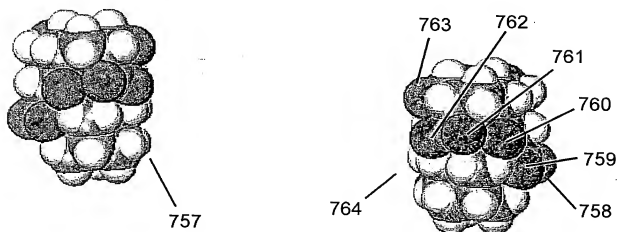


FIG. 7H

REPLACEMENT SHEET

APPLN. FILING DATE: JULY 16, 2003

TITLE: DIAMONDROID-BASED COMPONENTS IN

NANOSCALE CONSTRUCTION

INVENTOR(S): ROBERT M. CARLSON ET AL.

APPLN. NO.: 10/621,718

SHEET 18 OF 36

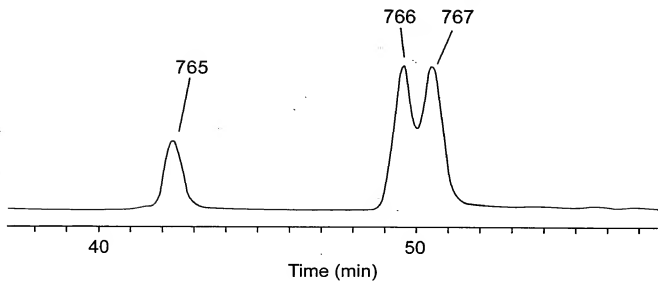


FIG. 7I

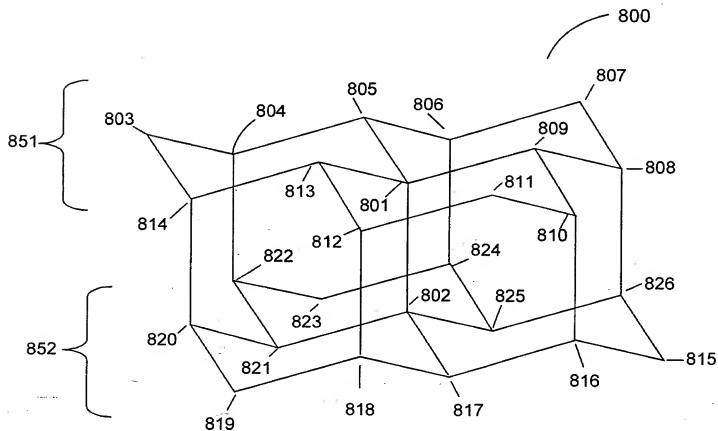


FIG. 8A

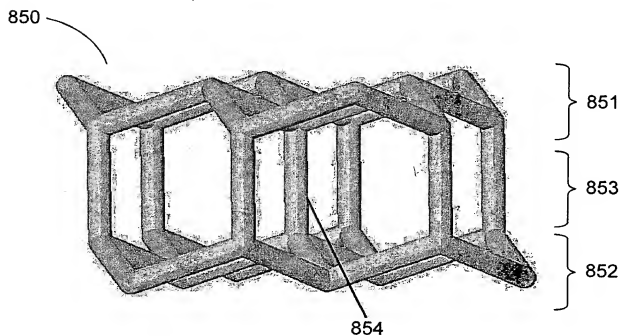


FIG. 8B

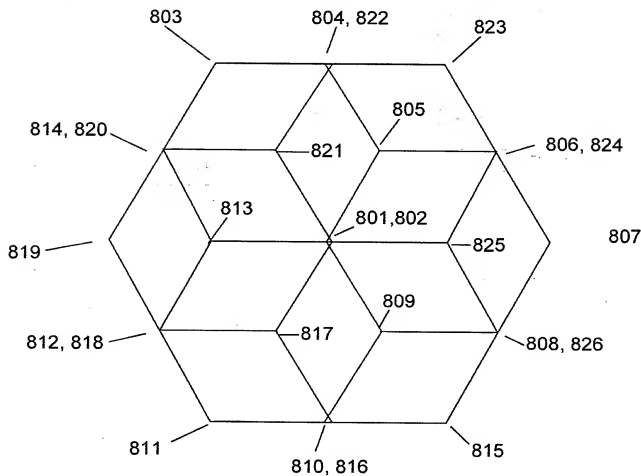
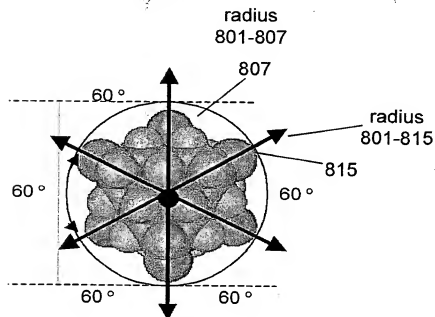
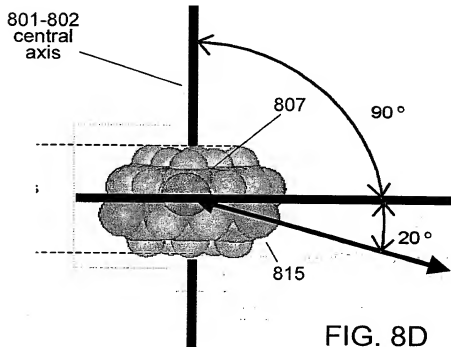
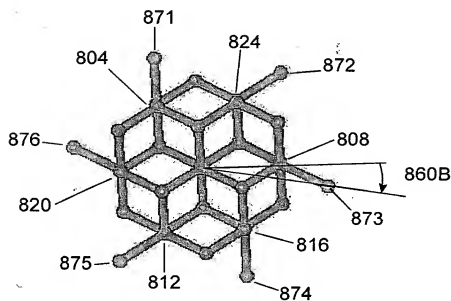
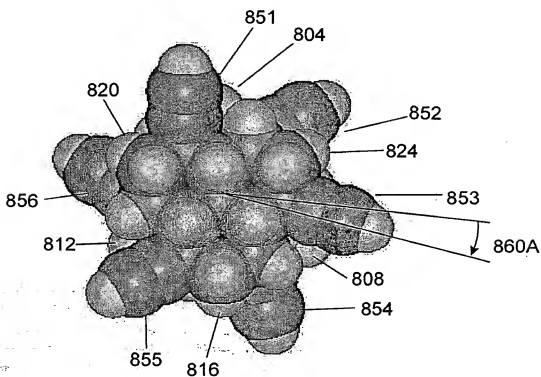


FIG. 8C





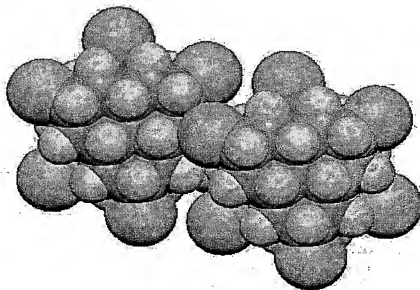


FIG. 8H

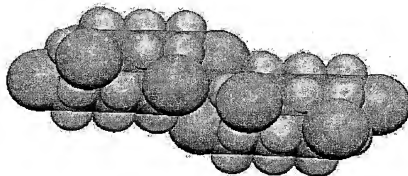


FIG. 8I

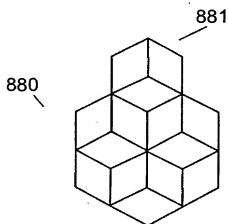


FIG. 8J

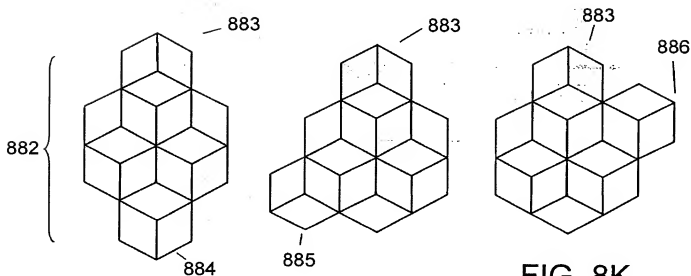


FIG. 8K

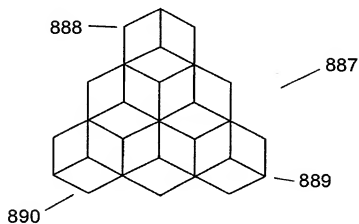


FIG. 8L

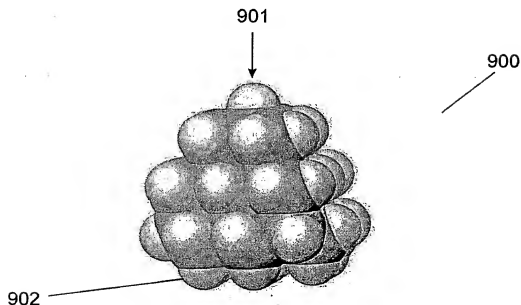


FIG. 9A

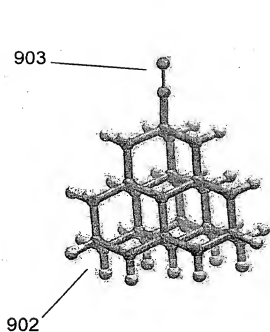


FIG. 9B

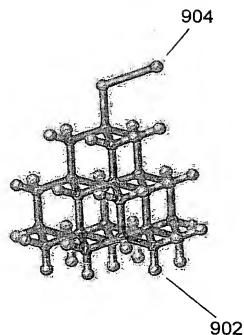


FIG. 9C

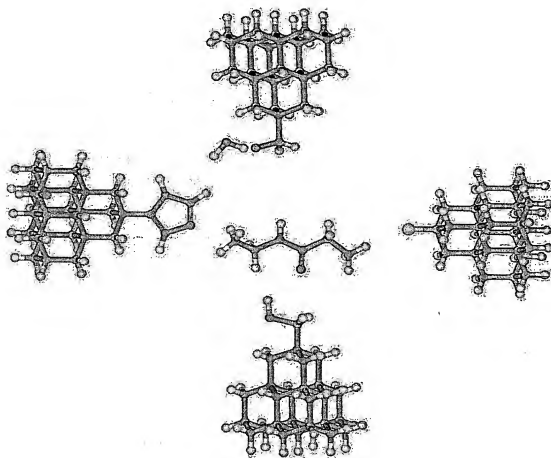


FIG. 9D

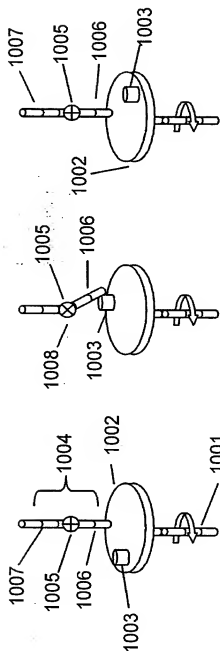


Fig. 10A

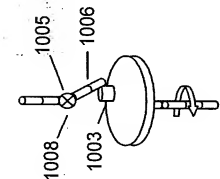


Fig. 10B

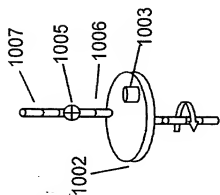


Fig. 10C

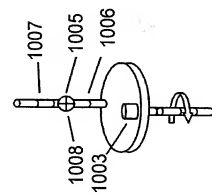


Fig. 10D

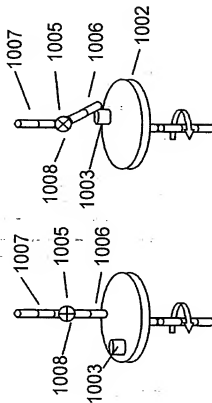


Fig. 10E

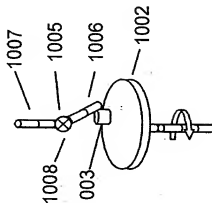
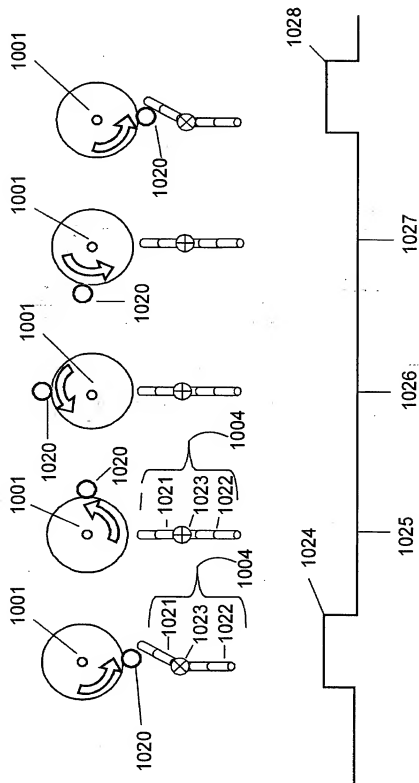
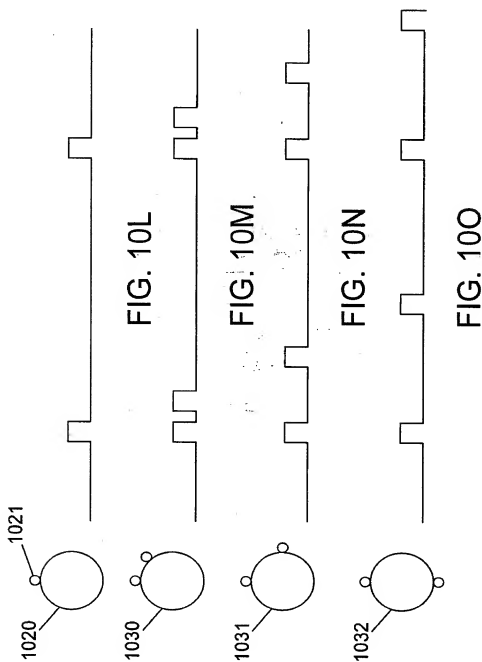


Fig. 10F

FIG. 10G FIG. 10H FIG. 10I FIG. 10J FIG. 10K





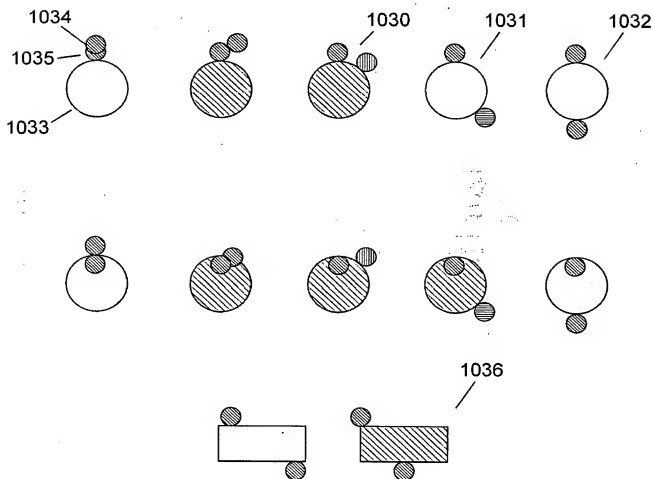


FIG. 10P

+

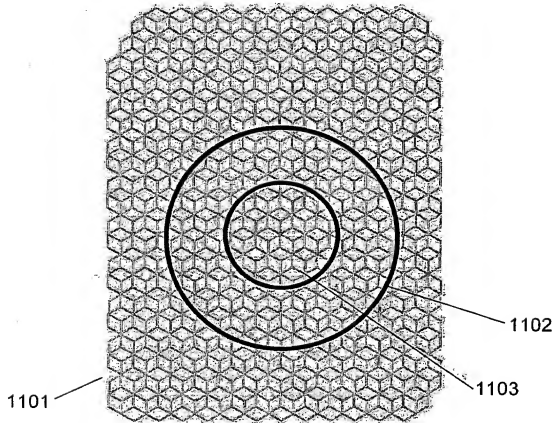


FIG. 11A

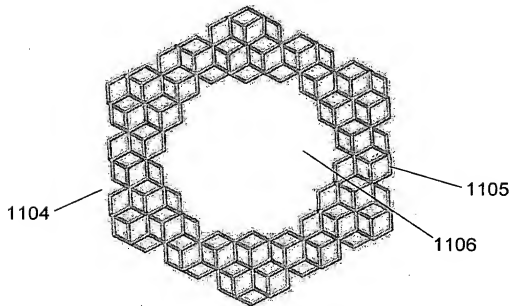


FIG. 11B

+

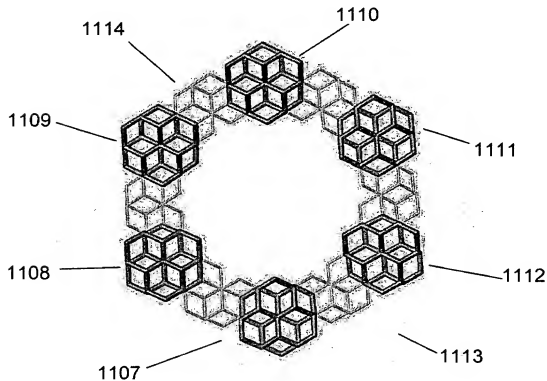


FIG. 11C

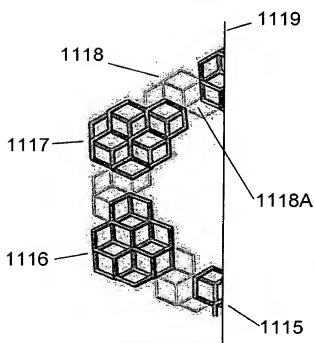


FIG. 11D

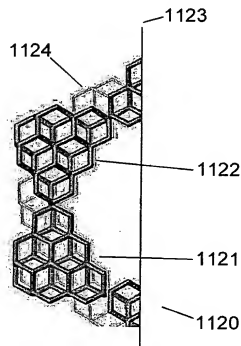


FIG. 11E

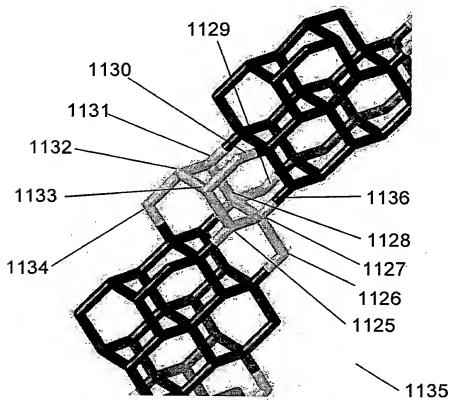


FIG. 11F

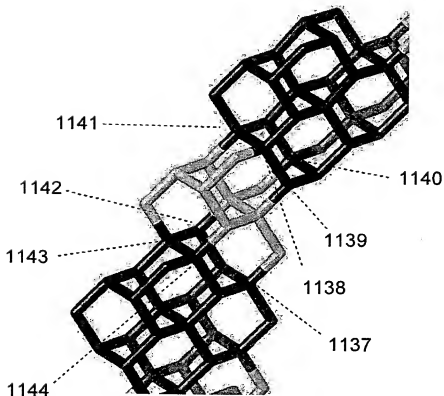


FIG. 11G

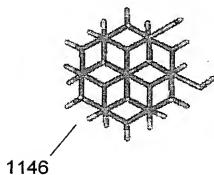


FIG. 11H

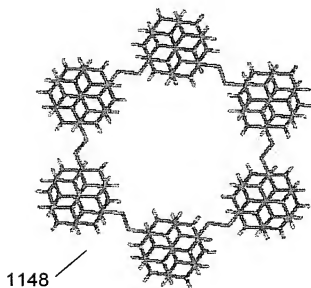
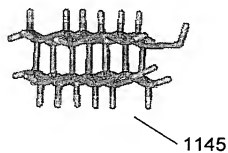


FIG. 11I

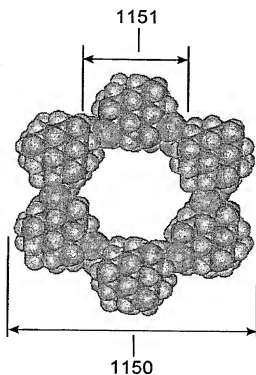
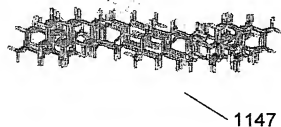
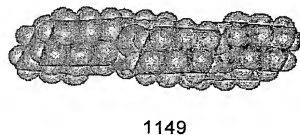
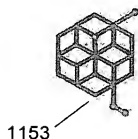
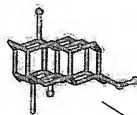


FIG. 11J





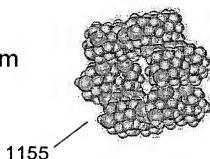
1153



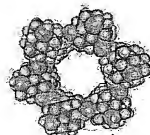
1152

FIG. 11K

1.7 nm



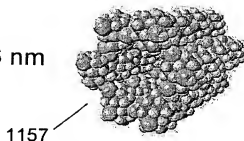
1155



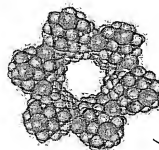
1154

FIG. 11L

3.6 nm



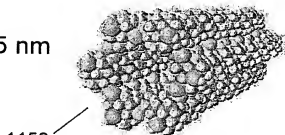
1157



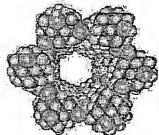
1156

FIG. 11M

7.5 nm



1159



1158

FIG. 11N

REPLACEMENT SHEET

APPLN. FILING DATE: JULY 16, 2003

TITLE: DIAMONDOID-BASED COMPONENTS IN

NANOSCALE CONSTRUCTION

INVENTOR(S): ROBERT M. CARLSON ET AL.

APPLN. NO.: 10/621,718

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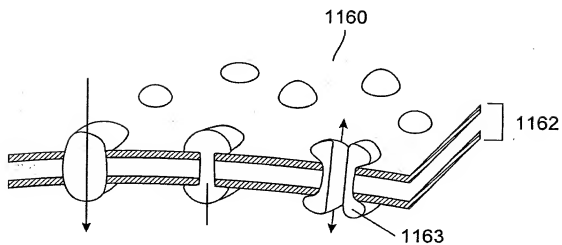


FIG. 110